04-SF, Mrn
On Various Routes at Various Locations
Program Code: 201.235
EA 3G700K
September 2011

Request Programming in 2012 SHOPP

PROJECT LOCATION: In Marin and San Francisco Counties on Various Routes at Various Locations

APPROVAL RECOMMENDED:

Jeanne Gorham 9-15-11
JEANNE GORHAM, DISTRICT PROGRAM MANAGER

APPROVAL RECOMMENDED:

LAWRENCE A. JONES, PROJECT MANAGER

APPROVED:

Bijan Sartipi
BIJAN SARTIPI, DISTRICT DIRECTOR

9-15-11
DATE

This Project Initiation Document has been prepared under the direction of the following licensed landscape architect. The licensed landscape architect attests to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based.

LICENCED LANDSCAPE ARCHITECT

9/15/2011
DATE

1. Initiating Office/Initiator:

The District 4 Program Manager for the Roadside Safety Improvement Program has established that a roadside safety project is needed in the following counties, routes and locations that meets the qualification for the 201.235 Program. The locations include narrow areas needing paving in Marin County on Route 101 between PM 7.6 and 17.8. They also include removal and replacement of irrigation facility components in San Francisco City and County on Routes 101 between PM 1.6 and 4.1 and on Route 280 between PM R3.7 and R6.7.

This Small Capital Value Project (SCVP) project initiation document (PID) provides conceptual approval of the proposal and a recommendation to program the project into the 2012 State Highway Operation and Protection Program (SHOPP.) A project report will serve as final approval of the proposal.

2. Purpose and Need:

Purpose:

The purpose of the 20.XX.201.235 - ROADSIDE SAFETY IMPROVEMENTS Program is to minimize the frequency and duration of highway worker exposure to traffic by providing safe access to work areas and by providing features to reduce repetitive maintenance activities. The program originated as the result of annual Caltrans statewide stand-down meetings to improve safety for Caltrans employees as well as the travelling public. The program provides off pavement access areas that can be used by highway workers for landscape/electrical maintenance; litter pickup crews; the motoring public for emergencies; and the California Highway Patrol for traffic control. Safety improvement measures under this program also include relocating existing roadside facilities to safe work locations away from the travelled way; paving extended gore areas, narrow areas, and some slopes adjacent to bridge structures; providing vegetation control treatments under existing guardrail, in low visibility areas and along the road edge;

Need:

Installation of roadside safety improvements such as gore area paving, maintenance vehicle pullouts (MVPs,) and access gates, will decrease worker exposure. Currently, the maintenance of the unpaved gore areas must be performed manually, requiring daytime lane closures exposing maintenance workers to high speed traffic on the heavily congested routes in the San Francisco Bay Area. In areas lacking adequately located MVPs or access gates, often maintenance vehicles are forced use the shoulders or other less desirable areas to park in order to be in the vicinity of the work.

The Department's Maintenance work force has declined in size over time, resulting in responsibility for more lane miles and acreage of right of way per person for fewer staff crews. At the same time, Department policies to reduce herbicide applications Statewide mean that other measures are needed to control weeds or other out-of-place vegetation on the roadside or road edge.

3. Deficiency Summary:

There are existing risks associated with worker exposure to traffic as determined by frequency and duration of exposure and the variety of maintenance crews working in an area. These risks can decrease with installation of roadside safety improvements.

4. Project Proposal:

District Maintenance has identified an area requiring relocation of irrigation facility components for worker safety on Routes 101 and 280 in San Francisco City and County. San Francisco has obsolete irrigation equipment including nozzle line that is no longer standard and is a hindrance to Maintenance. Maintenance has also identified multiple locations of unpaved gore and narrow areas that need safety improvements in Marin County within the project post-mile limits. Paving gore areas will prevent weed growth and enable mechanical sweeping, thus decreasing worker exposure while increasing public safety. Since the hydrology will be affected by the paving, the need for drainage modifications will have to be addressed.

In the course of investigation during the PA&ED phase, there may other locations identified as needing gore paving, maintenance vehicle pullouts (MVPs) or access gates.

R/W: All construction work including traffic control operations is anticipated to be performed within the State Right of Way. A Right of Way data sheet will be included in PA&ED phase.

Hazardous Waste: Hazardous material investigation and recommendations will be performed during the PA&ED and PS&E phases.

Stormwater: This project has anticipated soil disturbance, temporary water quality impacts resulting from the construction activities in this project will be addressed at PA&ED phase. A Storm Water Data Report (SWDR) will be included in PA&ED phase.

Hydraulics: The existing water flow lines will be affected by the gore paving. District

Hydraulics will need to investigate and provide recommendations for drainage modifications during the PA&ED and PS&E phases.

Environmental: This project is expected to have no economic, social or environmental impacts, and a Categorical Exemption is the anticipated environmental clearance document. Environmental analysis will performed during the PA&ED phase.

5. Programming

PROJECT CAPITAL COST		
Fiscal Year	**Right of Way Capital**	**Construction Capital**
FY 11-12		$1,777,800
FY12-13		$1,848,900
FY13-14	$5,000	$1,922,900
FY14-15		$2,000,000

Key assumptions for the cost estimate:

- 4% annual escalation
- Excavated soil is ADL contaminated
-

	PROJECT SUPPORT COMPONENTS								
	PA&ED 0 Phase		**Design 1 Phase**		**Right of Way 2 Phase**		**Construction 3 Phase**		**Total**
	Dist	**DES**	**Dist**	**DES**	**Dist**	**DES**	**Dist**	**DES**	
Estimated PY's	0.8		1.1		0.2		1.7		3.8
Project Support in dollars ($K)	140		200		40		300		680

Key assumptions for support cost estimate.

- Support Cost is 34% of Capital Cost
- $105/hr
- $180,000 per PY

6. Schedule:

HQ Milestones	Delivery Date (Month, Day, Year)
PA & ED	9/30/2013
Regular Right of Way	9/30/2014
Project PS&E	9/30/2014
Right of Way Certification	12/01/2014
Ready to List	12/01/2014
Approve Contract	4/30/2015
Contract Acceptance	4/30/2016
End Project	8/31/2016

Key assumptions for the schedule.
160 working days
Vote 1/31/15, Adv. 2/28/2015
No environmental schedule constraints.

7. Attachments:

A. Project Location Map
B. Project Location List
C. Preliminary Project Cost Estimate

PRELIMINARY COST ESTIMATE

Access Work		Yes/No	Quantity (unit)	*Cost
(A)	Access Gates - Personnel			
(B)	Access Gates - Equipment			
(C)	Light Duty Access Trails			
	(a) All Weather Surface			
	(b) Graded Surface			
	(#) _____			
(D)	Shoulder Widening/Turnouts**			
	(a) Paved Surface			
	(b) All Weather Surface			
	(c) Graded Surface			
	(#) _____			
(E)	Staircases			
(F)	Maintenance Vehicle Pullout			
(#)				
	COSTS SUBTOTAL			

Vegetation Control Work	Yes/No	Quantity (unit)	*Cost
(A) Vegetation control under Metal Beam Guard Rail			
(B) Vegetation control under Thrie Beam Barrier			
(C) Vegetation control around sign posts			
(D) Paving narrow areas	Yes	44,700 (SF)	$460,410
(E) Paving areas beyond the gore			
Item#190101, 250401,390102			
COST SUBTOTALS			$460,100

Facility Relocation Work	Yes/No	Quantity (unit)	*Cost
(A) Pull boxes			
(B) Irrigation valve boxes			
(C) Backflow preventer assemblies	Yes	3	$6,000
(D) Electrical control boxes			
(E) Traffic control boxes			
(F) Irrigation control boxes	Yes	13	$57,000
(G) Relocate, Modify & Maintain Existing Irrigation Facilities	Yes	(LS)	$135,000
COST SUBTOTALS			$198,000

Additional Work		Yes/No	Quantity (unit)	*Cost
(A)	Traffic Control	Yes	(LS)	$180,000
(B)	Earthwork***	Yes	44,700 (SF)	$496,170
(C)	Pavement****			
(D)	Clearing and Grubbing	Yes	(LS)	$14,000
(E)	Other Landscape Related Work# (List type of work)			
	Vegetation Control			
	Erosion Control	Yes	(LS)	$36,000
	Water Quality Control	Yes	(LS)	$36,000
	Remove Tree	Yes	(LS)	$8,000
(F)	Guardrail (include remove and replace)			
	(a) Metal Beam			
	(b) Concrete			
	(c) Bridge Approach			
	(#)			
(G)	Drainage Adjustment and Rehabilitation# (List type of work)	Yes	(LS)	$70,000
(H)	Retaining Walls			
(I)	State Utility Box Relocation	Yes	LS	$10,000,00
	COST SUBTOTALS			$850,170
	SUM OF SUBTOTALS			$1,508,270
	25% Contingency			$500,000
	TOTAL PROJECT COST			$2,008,270
	Say			$2,000,000

Note: * If duplicated in other items, show cost in parenthesis.
** Include cost of shoulder backing material, as needed.
*** Earthwork other than that required for grading turnouts or access trails.

**** Pavement work other than that required for the Access or Vegetation Control work.
# Add Additional lines as necessary. Do not include support costs.

Right of Way Items

B. Utility Relocation (State Share) $5,000 (to be used for potholing)

REVISED SAN FRANCISCO COUNTY BY PRIORITY		SCOPE OF WORK				9/15/2011
No.	County	Locations: PM 1.6, PM 4.1, PM 3.7, PM 6.7			RTE 101 & 280	Quantity
1	SF	RICS Station Base Station				1 EA
2	SF	6 Controllers				6 EA
3	SF	6 Cabinets				6 EA
4	SF	Modify Irrigation				LS
5	SF	3 Backflow Enclosures				3 EA
6	SF	Remove Nozzle Line				21,000 LF

RTE 101
END PM 4.1

RTE 101
BEGIN PM 1.6

RTE 280
BEGIN PM 3.7

RTE 280
END PM 6.7

REVISED MARIN COUNTY BY PRIORITY						SCOPE OF WORK				9/15/2011
No.	County	Route	PM	Location						Area/SF
1	Mrn	101	11.2	Mission median slope paving East Side						320
			11.2	Mission median slope paving West side						4,580
2	Mrn	101	7.6	red/brown slope paving SB Madera off-ramp triangle						10,600
3	Mrn	101	12.5	NB San Pedro						4,500
4	Mrn	101	17.8	Ignacio/Nave 12' wide narrows						13,500
5	Mrn	101	14.6	Lucas Valley						5,600
6	Mrn	101	12.8	SB San Pedro Island						5,600
									TOTAL	44,700

END PM 17.8
NAVE DR.

BEGIN PM 7.6
MADERA BLVD.